CENTRAL REGIONAL LABORATORY
Data Checklist

Data Set AIR 2002 0066 Cheshire Monitoring Study
Suspended Particles

☑ Chain of Custody

☑ Analysis Request Form(s)*

☐ Sample Tags

☑ Transmittal Report w/signatures of the following:

- Analyst(s)
- Environmental Data Coordinator

*Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations.

Prepared by: Sylvia Griffin 6-3-02
Environmental Data Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 0 3 2002

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Edgar Santiago, Chemist** FAA for ES
Region 5 Central Regional Laboratory

To:

Attached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20020066**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH43D01, 2002AH43S01, 2002AH43S02, and 2002AH43S03.**

JUN 0 3 2002

Data Management Coordinator and Date Received

Date Transmitted: JUN 0 3 2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____ / /

Received by and Date

Comments:

Rev. 7/23/01

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
02AH43	Cheshire monitoring Study

SAMPLERS: *(Print Name and Sign)*
Mike Murphy Mike Murphy M.J. Murphy

Activity Code: ~~12345~~ 90101A

AIR 20020066

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte	TAG NUMBERS
DO1	4/14	00:00	X		GHS	1		5-340196 1 to 1
SO1	4/14	00:00	X		GHS	1		5-340195 1 to 1
SO2	4/14	00:00	X		RVHS	1		5-340197 1 to 1
SO3	4/14	00:00	X		ADDAVILLE	1		5-340198 1 to 1
								GHS # 3012, P_{STG} Avg = 20.05
								GHS # 3013, P_{STG} Avg = 20.55
								RVHS, P_{STG} Avg = 20.45
								Adelaville, P_{STG} Avg = 20.9

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
M.J. Murphy	4-14-02 11:23	A. Williams Jr.
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) / Date / Time
		A. Williams Jr. 5/15/02 14:22

Ship To:

ATTN:

Airbill Number
UPS # 12 401 1990 1408 9 3181

Chain of Custody Seal Numbers

5-140049

Project No. 02AH43 | Project Name CHESHIRE MONITORING STUDY
AIR 2002-0066 CHESHIRE MONITORING STUDY

90101A
ARRIVAL DATE: 5/15/2002
DUE DATE: 6/15/2002

Sampler: Mike Murphy

Cooler ID: 1 | Page: 5-140049

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH43DO1	DO1	14/04/2002 00:00:00	○ Grab ● Com	GHS	1	5-340196 1 to 1

Bottle No. 1 Parameter: PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH43SO1	SO1	14/04/2002 00:00:00	○ Grab ● Com	GHS	1	5-340195 1 to 1

Bottle No. 1 Parameter: PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH43SO2	SO2	14/04/2002 00:00:00	○ Grab ● Com	RVHS	1	5-340197 1 to 1

Bottle No. 1 Parameter: PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH43SO3	SO3	14/04/2002 00:00:00	○ Grab ● Com	ADDAVILLE	1	5-340198 1 to 1

Bottle No. 1 Parameter: PM10

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated ***B***lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (*J* is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL ***M***ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is estimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te***N***tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or ***Q***uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are ***R***ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed for but ***U***ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION **SAMPLING DATE:** 04/14/2002 **LAB ARRIVAL DATE:** 05/15/2002 **DUE DATE:** 06/05/2002
DU NUMBER: 90101A **DATA SET NUMBER:** 20020066 **STUDY:** CHESHIRE MONITORING STUDY **PRIORITY:** 1 **LABORATORY :**CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH43D01	GUIDING HANDS SCHOOL	0.0223			
2	2002AH43S01	GUIDING HANDS SCHOOL	0.0180			
3	2002AH43S02	RVHS	0.0163			
4	2002AH43S03	ADDAVILLE	0.0172			
DATE OF ANALYSIS			05/21- 22/2002			
ANALYST			E.S			

Reviewed by: FAA **Date:** 5/31/02

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020066 Facility: CHESHIRE MONITORING

Parameter: PM10 CRL.SOP: AIG-047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: E.S Peer Reviewer: FMN

Date: 5/22/02 Date: 5/30/02

Comments Attached? (Y/N) N

Data Set Number:	*20020066*	**Parameter:**	*Suspended Particles*
Facility Name:	*CHESHIRE MONITORING STUDY*		
Study Name:	*CHESHIRE MONITORING STUDY*		
Date of Narrative:	*05/22/2002*	**Analyst:**	*ES*
		Signature:	E.S

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on May 15, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6280019	2002AH43D01	5-340196
Q6280017	2002AH43S01	5-340195
Q6280015	2002AH43S02	5-340197
Q6280018	2002AH43S03	5-340198

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 05/21/2002 and was completed on 05/22/2002. All exposed filters were in good conditions. No sampler sn number was provided for filters Q6280015 and Q6280018 (CRL sample I.D number 2002AH43S02 and 2002AH43S03.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT
PM10

Parameter: Suspended Particles

Data Set Numbers: **20020066- 20020070**

Date of Analysis 05/21-22/2002

Analyst: ES

BALANCE VERIFICATION:

Sandard Weights Actual (g)	Balanced weight Balanced (g)	Differences (g)
		Limit +/-0.0005 g
1.0000	1.0000	0.0000
2.0000	2.0001	-0.0001
5.0000	4.9999	0.0001

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID Number	CRL Sample I.D Number	Analysis Date	ANALYST	Exposed weight (g)
Q6279991	2002AH47S01	05/22/02	Analyst 1	4.3634
Q6279991	2002AH47S01	05/22/02	Analyst 2	4.3638
Differences (Limit +/- 5 mg).....				-0.0004
Q6279983	2002AH45S03	05/22/02	Analyst 1	4.3910
Q6279983	2002AH45S03	05/22/02	Analyst 2	4.3914
Differences (Limit +/- 5 mg).....				-0.0004

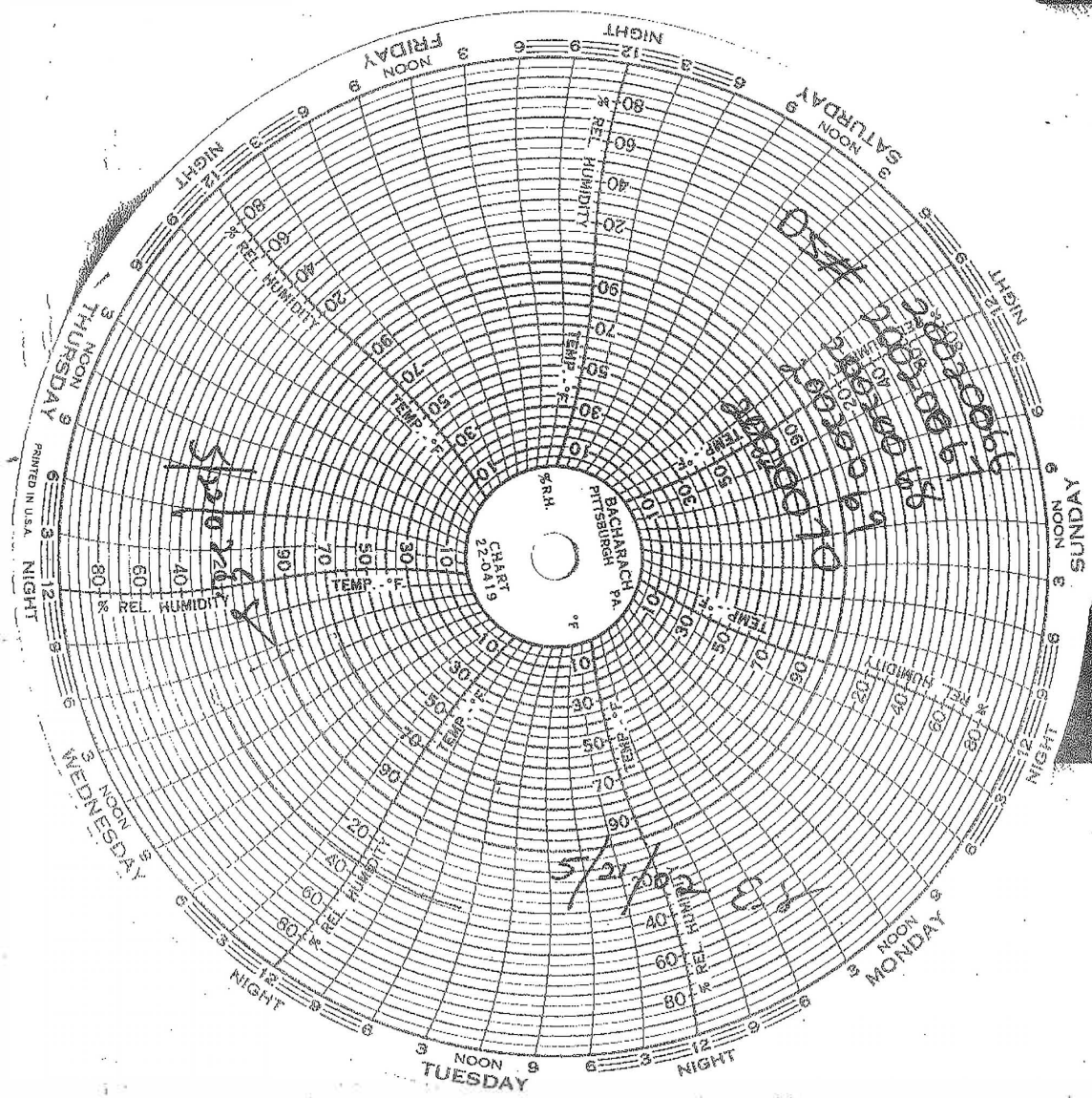
CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID Number	CRL Sample I.D Number	Sampling Date	Station Location	Sampler SN	Pstg Avg	P1/Pa	Total Volume (M^3)	Pre Weight of filters (g)	Exposed weight (g)	Weight Gain	PM10 (UG/M^3)
Data set Number 20020066											
Q6280019	2002AH43D01	04/14/02	Guiding Hands School	3013	20.55		**0.00**	4.3867	4.4090	0.0223	ERR
Q6280017	2002AH43S01	04/14/02	Guiding Hands School	3012	20.05		**0.00**	4.3607	4.3787	0.0180	ERR
Q6280015	2002AH43S02	04/14/02	RVHS		20.45		**0.00**	4.3751	4.3914	0.0163	ERR
Q6280018	2002AH43S03	04/14/02	Addaville		20.90		**0.00**	4.4018	4.4190	0.0172	ERR

General information	Standard weights, actual (g)	Balanced weights, balanced (g)
METTLER	~~0.5~~ 0.1000	0.1000
AG285	0.2000	0.2000
S/N 1120181840	0.5000	0.5000
mettler 050802	0.1000	0.0999
AG 285 KS	0.5000	0.4999
1120181846	2.0000	2.0000
	5.0000	5.0000
	10.0000	9.9999
SARTORIUS	(mg) (500+200+200+100) 1.0000	1.0000
#37010119	2.0000	2.0001
5/22/02 E.S	5.0000	4.9999

TS	FILTER I.D	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
	Q6280011	4.3826				
	Q6280012	4.3890				
	Q6280013	4.3380				
	Q6280014	4.3649				
	Q6280015	4.3751		4.3914		
	Q6280016	4.3537				
	Q6280017	4.3607		4.3787		
	Q6280018	4.4018		4.4190		
	Q6280019	4.3867		4.4090		
	Q6280020	4.3570		4.3842		
	~~Q6279995~~ Q6280021	4.3364		4.3657	4.3662	
	Q6279994	4.3793		4.4136		
	Q6279993	4.3950		4.4275		
	Q6279992	4.3634		4.3964		
	Q6279991	4.3423		4.3634	4.3638	
	Q6279990	4.3693		4.3900		
	Q6279989	4.3586		4.3915		
	Q6279988	4.3651		4.4019		
	Q6279987	4.3899		4.4205		
	Q6279986	4.3982		4.4304		
	Q6279985	4.3759		4.4050		
	Q6279984	4.3310		4.3573		
	Q6279983	4.3607		4.3910	4.3914	
	Q6279982	4.3609		4.3952		

TS	FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
12	Q8609578	4.3518		4.3696		
	Q8609577	4.4047				
	Q8609576	4.4045				
2	Q8609575	4.4086				
	Q8609574	4.3944				
	Q8609573	4.3820				
	Q8609572	4.3980	4.3983 4/9/02 RMA			
	Q8609571	4.4116				
	Q8609570	4.3708				
	Q8609569	4.3923				
	Q8609568	4.3413				
	Q8609567	4.3699				
	Q8609566	4.3652				
	Q8609565	4.3893				
	Q8609564	4.3782				
	Q8609563	4.3914				
	Q8609562	4.4055				
	Q8609561	4.4050				
	Q8609560	4.3683	4.3687 4/9/02 RMA			
	Q8609559	4.3343				
	Q8609558	4.3507				
	Q8609557	4.3532				
	Q8609556	4.3494				
	Q8609555	4.3580				


SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
NIGHT
NOON
% REL. HUMIDITY
TEMP. °F.
BACHARACH
PITTSBURGH PA.
CHART
22-0819
PRINTED IN U.S.A.

US EPA Region 5 Field Sample

5-340196-1

Parameters PM10

Air 20020066

Preservative None S M MD B D

Sample ID 02AH43DO1 X

Sampler M.J. Mur

Date 4-14-02

AIRS

PM-10 ✓ [redacted] ______ OPERATOR OEPA DATE 4-14-02

TSP ______ SITE GHS#3013 Q6286019

AVG. RECORDER RESP. 20.55 TEMP ______ °C ______ K FINAL WT ______ g

ELAPSED TIME 1440 MINUTES PRESS ______ mmHg INITIAL WT ______ g

FLOW ______ m^3/min TOTAL FLOW ______ m^3 SAMPLE WT ______ g

STD ______ ACTUAL ______ PM-10 ______ ug/m^3

COMMENTS: ______

EPA 2208 (REVISED 10/91)

US EPA Region 5 Field Sample

5-340195-1

Parameters PM10

AIR 2002006

Preservative None — S M MD B D

Sample ID 02AH43S01 — X

Sampler M.J. Murphy

Date 4-14-02

AIRS

M-10 ✓ ______ OPERATOR OEPA DATE 4-14-02

SP ______ SITE 6110 3012, 0628 0017

VG. RECORDER RESP. 20.05 TEMP ____ °C ____ K FINAL WT ____ g

LAPSED TIME 1440 MINUTES PRESS ____ mmHg INITIAL WT ____ g

LOW ____ m^3/min TOTAL FLOW ____ m^3 SAMPLE WT ____ g

TD ____ ACTUAL ____ PM-10 ____ ug/m^3

COMMENTS: ____

A 3306 (REVISED 10/91)

US EPA Region 5 Field Sample

5-340197-1

Parameters PM10

Hr Accurate

Preservative None S M MD B D

Sample ID 02AH43502 X

Sampler M. J. Muzy

Date 4-14-02

PM-10 ✓ AIRS [redacted] OPERATOR OEPA DATE 4-14-02

TSP _____ SITE RUHS Q6280015

AVG. RECORDER RESP. 20,45 TEMP _____ °C _____ K FINAL WT _____ g

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m^3

COMMENTS: _____

PA 0308 (REVISED 10/91)

US EPA Region 5 Field Sample

5-340198-1

Parameters PM10

AIR 2002 0006

Preservative None

S M MD B D

X

ID 02AH43SO3

AIRS

M-10 ✓ [redacted] OPERATOR OEPA DATE 4-14-02

SP ______ SITE Addaville @ 6280018

VG. RECORDER RESP. 209 TEMP ______ °C ______ K FINAL WT ______ g

LAPSED TIME 1440 MINUTES PRESS ______ mmHg INITIAL WT ______ g

LOW ______ m^3/min TOTAL FLOW ______ m^3 SAMPLE WT ______ g

TD ______ ACTUAL ______ PM-10 ______ ug/m^3

OMMENTS: ______

PA 3306 (REVISED 10/91)